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# FOOD FAT CONSUMPTION CONTINUES STABLE IN 1960 By George W. Kromer



In analyzing the total fat intake by Americans it is convenient to divide consumption into the so-called "visible" and "invisible" categories. As shown in table 7, consumption of visible fats (butter, lard, margarine, shortening, cooking and salad oils, and other edible fats and oils) in recent years has accounted for about 38 percent of the total fat intake whereas the invisible kinds (dairy products [excluding butter], eggs, animal products, various fruits, vegetables, and cereals) comprised 62 percent.

The total annual consumption of food fats (both visible and invisible) has increased to an average of nearly 120 pounds per person in the last several years, compared with 108 pounds in 1935-39 and around 115 pounds during the 1940's. This increase has occurred despite the conscious efforts of many consumers to limit their intake of this kind of food. The rise in fat usage is attributed to the "invisible" sector.

The use of visible food fats per person has changed remarkably little in the past generation. It averaged 45.5 pounds in 1960, compared with 45.1 pounds in 1935-39. In most years it has fluctuated within 10 percent of that level. However, major shifts within the visible fat groups have occurred over the years. We are now consuming more margarine, shortening, cooking and salad oils than in the prewar years but less butter and lard.

The consumption of invisible food fats has shown an upward trend. In 1935-39, the average use per person was 62.7 pounds, jumping to 74.0 pounds during World War II, and then dropping back to 72.7 pounds in 1947-49. In the last several years, it again has been in the 73-74 pound range. Much of the increase in the invisible category occurred in the form of meat, poultry, fish and game, which showed a rise from 32.5 pounds per person in 1935-39 to about 42 pounds in 1960. The other categories showed much smaller changes.

The remainder of this article will be concerned with only the trends in the consumption of visible food fats.

### Substitution Highlights The Trend in Consumption of Visible Food Fats

Major shifts in the use of food fats and oils have occurred over the past 40 years, even though per capita consumption has been relatively stable at around 45 pounds (fat content). However, total consumption keeping pace with an increasing population, has risen from about 5 billion pounds in the 1920's to over 8.1 billion in 1960.

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Table 7.--Civilian consumption of visible and invisible food fats per person, selected periods, 1935-60

	:			A	verage pe	fat co r capi	-	ion				
Source by food group	: 1935-39 : average		-	1942-45 : average :		49 : ge :	1955		: 1959 : 1/			960
		Pct.	Lb.	Pct.	Lb.	Pet.	Lb.	Pet.	Lb.	Pet.	Lb.	Pet.
Visible Fats	•											
Lard Margarine Shortening	: 13.5 : 11.0 : 2.3 : 11.8	12.5 10.2 2.1 11.0	10.0 12.4 3.0 9.2	8.7 10.7 2.6 8.0	8.2 12.4 4.6 9.6	7.1 10.8 4.0 8.4	7.0 10.1 6.6 11.5	8.5 5.5	6.2 9.0 7.4 12.6	5.2 7.5 6.2 10.6	6.0 7.9 7.6 12.6	5.1 6.7 6.4 10.7
Other edible fats and oils Total visible fats and	6.5 45.1		6.8	5.9	7.3 42.1	6.4 36.7	10.5		10.6	8.9 38.4	11.4	9.6 38.5
Invisible Fats  Dairy products, excluding butter Eggs Meats, poultry, game, and fish 4/ Dry beans, peas, nuts, soya flour and cocoa All fruits and vegetables	18.2 3.8 32.5 4.2			18.5 3.7 34.3 4.0		18.6 4.2 33.7 3.9 1.0		17.0 4.1 34.4 3.5	19.4 4.5 42.3 4.3 1.3	16.2 3.8 35.4 3.6 1.1	19.0 4.3 42.0 4.3 1.4	16.1 3.6 35.5 3.6 1.2
Grain products Total (invisible) all other foods	: 62.7	58.2	74.0	2.3 64.1	72.7	63.3	73.7		73.6	61.6	72.8	61.5
Total visible and invisible fats and oils	107.6	100.0	115.4	100.0	114.8	100.0	119.4	100.0	119.4	100.0	118.3	100.0

<sup>1/</sup> Preliminary.

Items other than visible fats and dairy products based on data of the Institute of Home Economics, ARS.

<sup>2/</sup> Partly estimated.

<sup>3/</sup> Excludes duplication in ice cream.

<sup>4/</sup> Includes fat cuts of pork.

Substitution has been continually taking place, both among the three major food fat product groups--table spreads (butter and margarine), cooking fats (lard and shortening), and cooking and salad oils--as well as among products within each group. Important shifts also have taken place in the fats and oils used in the end product.

Over the long term, reduced consumption of table spreads has been about offset by an increase in "other" edible oils (mainly cooking and salad oils). Total consumption of the cooking fats has shown no consistent upward or downward trend.

Civilians in calendar year 1960 consumed about 45.8 pounds (fat content) of food fats per person, about the same as in 1958 and 1959 and compares with the 40 year average of about 45 pounds (table 8). There were some important shifts in the types of fat consumed in 1960, as the postwar consumption trends were extended. Apparent disappearance of butter and direct use of lard were down but this was offset by increased usage of margarine and "other edible" oils. The consumption rates for shortening and salad and cooking oils showed no change.

Retail prices for most food fats and oils in 1960 dropped to the lowest level of the past decade. Compared with 1959, lard prices declined 5 percent; margarine, 4 percent; shortening, 7 percent; salad dressing, 4 percent; and butter, less than 1 percent. Retail prices of these food fats probably will average slightly higher in 1961 than in 1960, reflecting a higher level of primary prices of the basic food fats and oils in general.

## $\frac{\text{Margarine}}{\text{in 1960}} \; \frac{\text{Sets New Record}}{\text{New New Record}}$

Margarine consumption in 1960 reached a new high of 9.4 pounds (actual weight) per person, 0.2 pounds more than the previous year, and continues the postwar uptrend from about 4.0 pounds in 1946.

Increased production and consumption of margarine were made possible by the sharp growth in domestic output of edible vegetable oils during the last 20 years. Margarine's fat content averages about 81 percent. Expanding supply has meant lower prices in recent years for the fats and oils ingredients used in the manufacture of margarine. Margarine prices have declined while butter prices have been quite stable at support levels or above. The butter-margarine price ratio has increased.

Margarine output in 1960 set a new record of 1,695 million pounds, 5 percent more than in 1959 and about double the 1947-49 average of 840 million (table 9). A record 1,365 million pounds of fats and oils were used in margarine in 1960 compared with 1,293 million in 1959 and the 1947-49 average of 681 million pounds (table 10).

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Table 8.--Food fats: Civilian use per person, by type of product, 1921-60

		le spre		: :	ing fa	te	Edible	oils (	mainly c	ooking	and sa	alad oil:		
Year	(ac	tual we	ight)  Marg- arine	Total:	Ing Ta	Short- ening	Total	Used as cook- ing and • salad oils 2/	Mayon- naise	Potato chips 3/	Frozen french fries 3/	1.lor-		Fat content 4/
	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	<u>L</u> b.	Lb.
1922 1923 1924 1925 1926 1927 1928	: 18.3 : 18.8 : 19.8 : 19.8 : 20.1 : 20.3 : 20.6 : 20.2 : 20.5	16.3 17.1 17.8 17.8 18.1 18.3 17.6	2.0 1.7 2.0 2.0 2.0 2.0 2.3 2.6 2.9	17.8 20.0 20.9 21.2 22.0 21.7 22.4 22.5 22.6	10.8 13.3 14.3 14.2 12.3 12.2 12.7 13.2	7.0 6.7 6.6 7.0 9.7 9.5 9.7 9.3 9.9	3.5 4.4 3.9 4.8 5.6 4.9 5.0						39.5 43.1 44.7 45.5 46.8 47.7 47.9 47.7	36.0 39.5 40.9 41.6 43.0 43.8 44.0 14.0
1931 1932 1933 1934 1935 1936 1937 1938	20.2 20.2 20.1 20.1 20.7 20.6 19.9 19.9 19.6 19.7	17.6 18.3 18.5 18.2 18.6 17.6 16.8 16.8	2.6 1.9 1.6 1.9 2.1 3.0 3.1 3.1 3.0	22.5 23.0 21.9 21.5 22.5 21.7 23.6 22.8 22.6 23.4	12.7 13.6 14.4 14.0 13.0 9.6 11.3 10.5 11.1	9.8 9.4 7.5 7.5 9.5 12.1 12.3 12.3 11.5	6.2 5.1 4.8 5.3 5.4 5.9 6.0 6.6 6.9	   5.8	1.4	    5/		    5/	48.8 48.3 46.8 46.9 48.5 48.1 49.5 49.3 49.3	45.0 44.4 42.9 43.0 44.5 44.1 45.7 45.5 45.3 46.4
1942 1943 1944	19.4 18.9 18.7 15.7 15.8 15.0 14.1 16.2 16.1	17.0 16.1 15.9 11.8 11.9 10.9 10.5 11.2 10.0	2.4 2.8 2.8 3.9 3.9 4.1 3.9 5.0 6.1	23.4 24.2 22.2 22.6 21.2 20.8 22.0 22.0 22.4 21.5	14.4 13.8 12.8 13.0 12.3 11.7 11.8 12.6 12.7	9.0 10.4 9.4 9.6 8.9 9.1 10.2 9.4 9.7	7.4 8.2 7.6 6.7 6.9 6.4 0.9 7.1	5.9 6.5 5.8 4.9 4.5 4.5 4.5 4.5	1.5 1.7 1.8 1.8 2.1 1.6 1.9 2.4 2.6	5/ 5/ 5/ 5/ 5/ 5/ 5/ 5/ 5/ 5/ 5/ 5/ 5/ 5	5/ 5/ 5/ 5/ 5/ 5/ 5/ 5/ 5/ 01	5/ 5/ 5/ 5/ 5/ 5/ 5/ 5/ 5/ 5/ 5/ 5/	50.2 51.2 48.5 45.0 43.9 42.0 42.8 45.1 45.7	46.4 47.0 44.9 42.0 40.9 39.1 40.0 42.0 42.6 42.6
1955	: 16.8 : 16.2 : 16.5 : 16.6 : 17.4 : 17.2 : 17.0 : 17.1 : 17.4 : 17.2	10.7 9.6 8.6 8.5 8.9 9.0 8.8 8.5 8.4 8.0 7.8	6.1 6.6 7.9 8.1 8.5 8.2 8.6 9.0 9.2 9.4	23.6 21.3 22.0 21.6 22.0 21.6 20.7 19.9 21.0 21.6 20.5	12.3 12.3 11.9 11.4 10.2 10.1 9.8 9.5 9.7 9.0 7.9	11.0 9.0 10.2 10.2 11.8 11.5 10.9 10.4 11.3 12.6 12.6	8.6 7.7 8.7 9.1 9.5 10.5 10.9 10.8 11.0	5.0 4.1 4.8 5.0 5.4 5.9 5.5 5.5 5.6 5.4	2.0 2.7 2.7 2.0 3.0 3.2 3.3 3.6	1.0 1.0 1.1 1.3 1.4 1.6 1.8 1.8 1.8	.02 .03 .04 .05 .11 .13 .09 .13 .17	5/ 5/ .03 .07 .07 .07 .07 .06 .09	49.1 45.2 47.3 47.2 48.8 49.2 48.6 47.8 49.3 49.3	45.9 42.1 44.1 45.5 45.9 45.3 44.5 46.1 45.9 45.8

 $<sup>\</sup>underline{1}$ / Excluding use in margarine, shortening, and nonfood products.

<sup>2/</sup> During 1939-1948 represents estimate of oil usage other than oil in mayonnaise and salad dressings. Beginning 1949 includes small quantities used for miscellaneous commercial purposes.

<sup>3/</sup> Estimated.

<sup>4/</sup> Includes only the fat content of butter and margarine.

<sup>5/</sup> Not available.

Table 9.--Margarine (actual weight): Supply and disposition, 1935-60

	:		Supply			:		osition	
	:	Production	1		:	Exports	Domes	tic disappea	
Year	:	:	:	: Stocks,	: Total	and	. 1637.44	Civilia	an 1/
	: Colored	: Uncolored ;	: Total	: Jan. 1 :	:	shipments	: Military :	Total	Per capite
	: Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Lb.
lverage	:								
1935-39	: 2	370	372		372	1		371	2.9
1940	: 2	318	320		320	1		318	2.4
1941	: 5	363	368		368	5		364	2.8
1942	: 65	361	426		426	32		364	2.8
1943	: 116	498	614		614	2/109	2	501	3.9
بلبلو.	: 108	481	588		588	.93	1	497	3.9
.945	: 99	515	614		614	2/83	14	525	4.1
.946	: 58	514	573		573	52	5	533	3.9
.947	: 59	687	746		746	3/31 3/16	6	713	5.0
.948	: 95	812	908		908	<u>3</u> /16	5	887	6.1
.949	: 177	685	862		862	<u>3</u> / <sub>.</sub> 7	14	851	5.8
.950	: 500	437	937	13	950	3/7	11	918	6.1
951	: 829	212	1,041	14	1,055	<u>3</u> /6	34	996	6.6
.952	: 1,156	130	1,286	19	1,305	3/7	54	1,219	7.9
953	: 1,228	64	1,292	25	1,317	3/7 3/7 3/6 3/7 3/9	30	1,256	8.1
.954	: 4/	4/	1,364	55	1,386	8	5	1,346	8.5
955	:		1,334	27	1,361	8	6	1,323	8.2
956	:		1,370	24	1,394	9	4	1,354	8.2
957	:		1,463	28	1,490	10	8	1,446	8.6
958	:		1,573	26	1,599	9	3	1,549	9.0
959	:		1,611	38	1,649	10	2	1,604	9.2
960 5/	:		1,695	34	1,729	10	11	1,676	9.4
1961	:			33					

<sup>1/</sup> Prior to 1950 based upon data from Bureau of Internal Revenue. 2/ Includes American Red Cross procurement for prisoner-of-war packages. 3/ Includes estimated quantities exported in food packages through CARE and other nongovernmental relief agencies; does not include quantities mailed abroad by individuals. 4/ Breakdown between colored and uncolored not available beginning with 1954. Production mainly colored since 1953. 5/ Preliminary.

Totals and per capita computed from unrounded numbers.

Table 10--Margarine: Fats and oils used in manufacture, 1935-60

	:		Vegetal	ble oils			Animal fat	s and oils	:	
Year	: Soybean : oil	Cotton- seed	: Peanut : oil	: Corn : oil	: Coconut : oil	Other	Lard	Beef fats	Vegetable stearine 1/	Total 2/
	: Mil. 1b.	Mil. 1b.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. 1b.
Average	:									
1935-39	: 32	125	3	1	105	15	2	20		303
1940	: 87	116	2	<u>3</u> /	22	6	5	19	3/	257
1941	: 76	150	2	-1	30	6	8	24	2	297
1942	: 133	167	1	2	3	3	8	29		346
1943	: 198	252	5	6	ő	4	11	24	3/	500
1944	: 211	215	12	11	0	3/	10	17	- 1	478
1945	: 207	254	10	9	0	3/ 3/	6	13		499
1946	: 201	223	12	7	15		2	5		465
1947	: 228	323	17	7	21		3	8		607
1948	: 255	453	11	i	5	2	3	6		736
1949	: 257	431	3/	1	3/		4	7		701
1950	: 312	418	<u>3/</u>	1		2	1,	9	11	764
1951	: 473	334	16	4	1	2	14	7	11	851
1952	: 652	354	3	3/			5	8	24	1,046
1953	: 726	275	2	1	7	2	8	13	12	1,049
1954	: 665	397	2	3/	5	1	7	10	17	1,106
1955	: 746	278	2	<u>3/</u> <u>3/</u>	6	1	13	9	16	1,075
1956	: 752	283	3	1	8	1	31	6	24	1,111
1957	: 874	237	3	3/	5	3	25	9	24	1,182
1958	: 1,070	145	4	1	4	2	16	8	19	1,269
1959	: 1,094	124	4	17	1	10	36	8	4/	1.293
1960 5/	: 1,105	136	ŽĮ.	50		5	59	7		1,365

<sup>1/</sup> Most of the vegetable stearine used in margarine prior to 1950 was included with the primary oil. 2/ Includes 2 million pounds of secondary oils other than vegetable stearine in 1952, 3 million in 1953, 1954, 1955 and 1956, and 2 million in 1957 and 1958.
3/ Less than 500,000 pounds. 4/ Not reported separately beginning 1959. 5/ Preliminary.

By far the largest source of fats and oils for expanded margarine output has been soybeans. Soybean oil used in the manufacture of margarine reached a new peak of 1,105 million pounds in 1960, and constituted 81 percent of all fats and oils used in making the product. Only small quantities of soybean oil were used in margarine before World War II.

Cottonseed oil was the major constituent in margarine just after the end of the war, but its consumption decreased in the years following. The 136 million pounds of cotton oil used in margarine during 1960 was the lease since 1940 (except for 1959 when 124 million pounds were consumed), and was about 10 percent of total fats and oils consumed. Small quantities of lard, beef fats, corn oil, peanut oil, coconut oil, and other vegetable oils also are used in margarine. They have increased little as margarine output has grown sharply.

#### Butter Consumption Rate in 1960 Smallest Of Record

Butter consumed per person in 1960 averaged 7.8 pounds (actual weight) per person, 0.2 pounds less than the previous year and the smallest of record (table 11). During the war, civilian butter use dropped from 17.0 pounds per person in 1940 to 10.5 pounds in 1946. Butter use increased to a postwar peak of 11.2 pounds in 1947, but has trended downward rather steadily since. As mentioned above, margarine consumption has been on the uptrend since the war ended, reaching a record 9.4 pounds in 1960.

Annual production of butter declined only slightly during 1955-60 averaging about 1.5 billion pounds or 30 percent below the 1935-39 average. Butter output in 1960 totaled 1,479 million pounds, nearly 3 percent above 1959 but otherwise the smallest since 1952. The increase was in creamery butter which more than offset the drop in farm butter. Farm butter production has declined each year since World War II, dropping from 336 million pounds in 1945 to a mere 91 million in 1960.

Butter production has averaged somewhat larger than distribution through commercial channels in recent years, mainly because it is one of the products purchased under the dairy support program. Retail prices accordingly were determined primarily by support prices. An increasing proportion of the milk produced on U. S. farms has gone into fluid use and the percentage used for butter has decreased.

Butter prices to consumers have been at least double those for margarine in most years since the mid-1930's. In 1960 the price ratio was 2.8, and margarine prices were at the lowest level in the postwar era. Wholesale prices of butter have been close to Government purchase prices a large part of the time since the postwar dairy price support program was begun in 1949.

#### Shortening Use in 1960 at Peak Level

During the past 4 decades, the total consumption of cooking fats, consisting of the direct use of lard plus the consumption of shortening, has been fairly stable, averaging about 22 pounds per person (table 8). The combined usage rate in 1960 at 20.5 pounds was 1.1 pounds below 1959, reflecting a sharp drop in lard consumption.

Table 11.--Butter, actual weight: Supply and disposition, 1935-60 1/

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	:		Supply				:		Disposit:	ion	
	:	Production		:	: Cold : storage	: :	: Exports : and :		Domes:	tic disappea use as butt	
Year	: Creamery :	Farm	Total	:	: stocks, : Jan. 1 : 2/	Total supply	: shipments : to U. S. : :Territories:	Total	: Military : pro- :curement	:Civilian	. per capita
Average	:Mil. lb.	Mil. lb.	Mil. lb.	Mil. 1b.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Lb.
1935-39	1,716	479	2,195	9	64	2,268	7	2,196		2,196	17.0
1940	: 1,837	403	2,240	1	55	2,296	11	2,244		2.244	17.0
1941	: 1,872	395	2,268	4	41	2,313	13	2,185	70	2,116	16.1
1942	: 1,764	366	2,130	20	114	2,264	24	2,217	124	2,092	15.9
1943	: 1,674	342	2,015	3	25	2,043	94	1,791	266	1,525	11.8
1944	: 1,489	330	1,818	2	158	1,978	97	1,853	321	1,532	11.9
1945	: 1,364	336	1.699	4	28 41	1,731	55 16	1,635	222	1,413	10.9
1946 1947	: 1,171 : 1,329	331 311	1,502 1,640	Ĺ	23	1,550 1,667	17	1,510	54 28	1,456 1,600	10.5
1948	: 1,329	293	1,504		22	1,526	8	1,486	36	1,450	10.0
1949	: 1,412	276	1,688	3/	32	1,720	6	1,581	32	1,549	10.5
1950	: 1,386	262	1,648	3/ 33/ 33/ 33/ 31/ 31/	133	1,781	28	1,648	34	1,614	10.7
1951	: 1,203	240	1,443	3/	105	1,548	24	1,497	52	1,445	9.6
1952	: 1,188	214	1,402	3/	27	1,429	2	1,354	38	1,316	8.6
1953	: 1,412	195	1,607	3/	73	1,680	26	1,372	43	1,329	8.5
1954	: 1,449	179	1,628	-1	282	1,911	57	1,475	65	1,410	8.9
1955	: 1,383	166	1,549	1	379	1,929	224	1,541	77	1,464	9.0
1956	: 1,413	149	1,562	3	163	1,728	184	1,519	70	1,449	8.8
1957	: 1,414	137	1,551	3	25	1,579	13	1,479	55	1,424	8.5
1958	: 1,390	121	1,511	2	87	1,600	38	1,493	50	1,443	8.4
1959	: 1,334	106	1,440	2	69	1,511	29	1,451	51	1,400	8.0
1960 <u>4</u> / 1961	: 1,388 :	91	1,479	3	31 77	1,513	10	1,425	50	1,375	7.8

<sup>1/</sup> Totals computed from unrounded numbers. 2/ Includes stocks held by U. S. Department of Agriculture. 3/ Less than 500,000 pounds. 4/ Preliminary.

Table 12.--Fats and oils other than butter and lard: Estimated direct use for food, 1935-60 1/2/

	Supply of	food fats	and oils	Nonfood oils	: Total :supply and	: 1:		Disposition			
Year	Production.	-	: :Beginning	used in food	:nonfood :oils used	: Food oils : including	. Use in	: Exports	:	domestic : Civi	
	3/	Imports	: stocks : <u>4</u> /	products <u>5</u> /	:in food :products :	:foots, used :in nonfood : products	: and	: and :shipments :	: Military : <u>6</u> /	: Total	: :Per capita
	: Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. 1b.	Mil. lb.	Mil. lb.	Mil. 1b.	Mil. lb.	Lb.
Average 1935-39	: : 2,156 :	306	751	487	3,700	194	1,827	54		837	6.5
1940	2,265	75	895	267	3,502	198	1,426	63		983	7.4
1941 1942	: 2,580 : 2,760	50 89	831 7/728	320 84	3,781 3,661	259 257	1,647 1,577	53 78	10 45	1,087	8.2 7.6
1943	: 3,219	81	707	32	4,039	305	1,890	219	42	996 861	6.7
1944	: 2,913	117	8/782	9	3,821	284	1,794	113	37	886	6.9
1945 1946	: 3,260 : 2,889	124 13	707 840	4 55	4,095 3.797	327	1,911	167 148	51 11	801 882	6.2 6.4
1947	: 3,335	19	541	130	4,025	323 411	1.877	235	11	988	6.9
1948	: 3,808	45	502	167	4,522	408	2,060	359	13	1,037	7.1
1949	: 4,593	21 80	644	149	5,407	503	2,066	960	9	1,163	7.9
1950 1951	: 4,468 : 4,718	41	704 568	193 188	5,445 5,515	538 453	2,315	714 918	12 23	1,297	8.6 7.7
1952	: 4,958	46	903	218	6,124	554	2,421	662	15	1,339	8.7
1953	: 5,389	47	1,134	203	6,773	535	2,488	700	15	1,415	9.1
1954 1955	: 5,505 : 5,961	68 84	1,620 1,156	252 225	7.445 7.426	495	2,925	1,341	14	1,514	9.5
1956	: 6,476	49	964	268	7,757	494 491	2,703	1,551 2,146	13 20	1,700	10.5
1957	: 6,746	52	837	280	7,915	451	2,589	2.169	27	1,824	10.8
1958	: 7,005	75	854	298	8,232	477	2,941	2.032	40	1,893	11.2
1959 1960 9/	: 8,132 : 8,580	64 69	793 1,032	262 224	9,251 9,905	461 517	10/4,774 10/4,908	2,825 3,192	10	11/150	11/.9 11/1.7
1961	:	- /	970	227	7,507	)+I	10/-,900	J,±7⊆	9	11/309	11/1.1

<sup>1/</sup> Total and per capita data computed from unrounded numbers. 2/ This category includes fats and oils used as cooking and salad oils and in such products as salad dressing, mayonnaise, baked goods, and other processed foods. 3/ Includes the following oils: Cottonseed, peanut, soybean, corn, sunflower, teaseed, and edible olive; oleo oil, oleo stock, oleostearine, edible tallow; and oil equivalent of cottonseed, soybeans, and peanuts exported for crushing abroad. 4/ Includes primary oils listed in footnote 3, secondary or processed edible oils, and oil equivalent of mayonnaise. 5/ Mainly coconut, palm, palm kernel, and babassu oils. 6/ Excludes some procurement for civilian feeding in occupied areas. 7/ Beginning 1942, includes stocks of sunflower and teaseed oils not reported separately in preceding years. 8/ Beginning 1944, includes stocks of secondary or processed edible oils not separately beginning 1959. For comparative purposes, if these oils were included as in earlier years, the 1950 total consumption would be 1,835 million pounds and per capita consumption 10.6 pounds; the 1960 total consumption would be 2,35 million pounds and

Table 13.--Shortening: Supply and disposition, 1935-60 1/

	:	Supply					position	
Year	Production		Stocks, Jan. 1	Total supply	Exports and shipments	Military ex- cluding relief	mestic disappears Civil Total	
	: Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Lb.
verage 1935-39 1940 1941 1942 1943 1944 1945 1946 1946 1946 1946 1946 1950 1950 1951 1953 1953	: M11. 1b. : : 1,529 : 1,190 : 1,409 : 1,300 : 1,438 : 1,363 : 1,441 : 1,450 : 1,374 : 1,441 : 1,487 : 1,710 : 1,403 : 1,611 : 1,675 : 1,961	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	M11. 15.  43  57  54  53  46  67  53  44  101  94  94	1,576  1,247 1,465 1,354 1,483 1,494 1,494 1,554 1,752 1,702 1,713 1,768 2,055	8 9 12 15 81 19 52 26 29 8 26 13 13 13 10 16 17	32 57 102 212 223 18 -5 8 12 20 28 47 62	1,519  1,185 1,367 1,237 1,237 1,147 1,175 1,409 1,338 1,410 1,435 1,656 1,365 1,562 1,597 1,870	9.0 10.4 9.6 8.9 9.1 10.2 9.7 9.7 11.0 9.0 10.2 10.2
955	: 1,975		120	2,095	42	47	1,863	11.5
956 957 958 959 960 <u>3</u> /	: 1,842 : 1,808 : 2,006 : 2,250 : 2,312		143 122 120 132 116 120	1,985 1,930 2,126 2,382 2,428	12 17 33 36 30	54 37 30 32 39	1,797 1,756 1,935 2,197 2,238	10.9 10.4 11.3 12.6 12.6

<sup>1/2</sup> Totals and per capita computed from unrounded numbers. Various adjustments have been made in exports, military and civilian use in 1941-49 primarily because of government programs. 2/2 Less than 500,000 pounds. 3/2 Preliminary.

Table 14.--Shortening: Fats and oils used in manufacture, 1935-60

	:		Veg	etable o	ils			Anima and	l fats oils	: : Total	:	:	: Total : primary
Year	: Cotton: seed: oil		Coconut	Peanut Oil	Corn oil	Other	Total	Lard	Beef fats		:Vegetable :stearine :		: and : secondary : fats and : oils
	:Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb	Mil. lb	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.
Average 1935-39	: 1,014	119	28	68	1	195	1,425	4	117	1,546			1,546
1940 1941 1942 1943 1944 1945 1946 1947 1948 1949 1950 1951 1952 1953 1954 1955 1956 1957 1958 1959 1960 <u>6</u> /	: 823 : 889 : 694 : 572 : 490 : 487 : 502 : 321 : 532 : 549 : 335 : 549 : 337 : 640 : 439 : 323 : 239 : 320 : 325 : 336	212 216 336 568 620 683 744 705 708 713 841 731 851 903 918 930 796 1,055 1,140	18 22 5 2/ 2/ 18 87 48 20 0 20 33 2 15 4 6 8 12 13	23 82 38 51 61 51 42 65 56 12 12 21 6 6 5 3 3	1 2/4 6 5 2 3 3 4 1 1 1 1 3 2 4 3 6 7	44 93 58 4/18 10 23 10 1 6 3 27 25 2 4 20 15 8 3 2 15	1,121 1,302 1,135 1,215 1,186 1,246 1,319 1,161 1,143 1,281 1,430 1,133 1,281 1,290 1,599 1,377 1,127 1,089 1,316 1,486	17 51 62 36 39 23 20 101 114 118 177 200 232 227 142 334 459 376 318 493 480	58 65 88 112 85 106 58 64 45 31 23 34 46 89 118 141 226 252 256 268	1,196 1,418 1,285 1,363 1,310 1,375 1,397 1,326 1,300 1,430 1,638 1,356 1,547 1,563 1,849 1,727 1,691 1,886 2,235 2,312	3/24 88 78 81 69 70 101 64 89 48 66 82 99 99 99 95 86 5/2	35 39 40 38 37 39 5/	1,196 1,418 1,309 1,458 1,388 1,456 1,466 1,396 1,403 1,494 1,727 1,405 1,613 1,681 1,969 1,988 1,855 1,824 2,011 2,235 2,312

<sup>1/</sup> Includes fish oils which have been negligible in recent years. 2/ Less than 500,000 pounds. 3/ October-December quarter only. 4/ Includes 7 million pounds of linseed oil. 5/ Not reported separately beginning 1959. 6/ Preliminary.

Shortening consumption in 1960 averaged 12.6 pounds per person, the same as the record 1959 usage rate. Shortening usage has trended upward in the postwar era from 9.1 pounds in 1945.

Shortening production in 1960 set a new record of 2,312 million pounds. This was 62 million pounds above 1959 and compared with the 1947-49 average of 1,434 million pounds (table 13).

Of the total fats and oils (2,312 million pounds) used in the manufacture of shortening in 1960, soybean oil comprised 51 percent, lard 21 percent, cottonseed oil 16 percent, and edible beef fats 12 percent. While use of all the major fats and oils increased except lard, the biggest gain in 1960 was registered by cottonseed oil. Before World War II, cottonseed oil ranked first as a shortening ingredient, with about two-thirds of total use (table 14).

#### Direct Use of Lard Record Low in 1960

Direct use of lard in 1960 declined to 7.9 pounds per person, 1.1 pounds less than a year earlier and the lowest of record. Direct use of lard has generally trended downward from the postwar peak of 12.7 pounds per capita in 1948 (table 16).

Increasing amounts of lard have gone into the manufacture of shortening. Consequently comparison of direct use of lard with use of shortening is somewhat misleading. For example, in 1960 lard represented 21 percent of all fats and oils consumed in shortening compared with about 8 percent in 1947-49. If this indirect use of lard is added to the direct use in the home, bakeries, and commercial and other institutions, it is evident that lard is still a major cooking fat in the U.S. Nethertheless, there has been a significant substitution of shortening for lard as such.

The population shift from agricultural to urban areas has been a major factor in the declining production and consumption of lard as such. Farm output of lard has declined steadily from the postwar peak of 439 million pounds in 1946 to a record low of 185 million in 1960 (table 15).

Other important factors affecting the competitive nature of the cooking fats industry include shifts in price relationships between lard and other fats and oils, changes in manufacturing techniques and consumer tastes and preferences, improvement in product quality and cooking recipes. Most of the past growth in shortening consumption can be traced to its substitution for lard in cooking uses. However, in the past decade there apparently has been some slight replacement of "solid" shortenings by "liquid" oils, whether used as a cooking and salad oil, or used in the manufacture of mayonnaise, salad dressings, and related products. This development probably is partly associated with the trend to lighter diets.

Table 15 .-- Lard: Supply and disposition, 1935-60

	·			pply			Disposition				
	:	Produ	action		:	:	: Export:	s and shipme	nts	_:	
Year	: Federally : inspected :	: Other :commercial :	Farm	Total	: Stocks : Jan. 1 : <u>1</u> /	Total	: Exports : 3/	Ship- ments	Total	: Domestic : disap- : pearance	
	: Mil. lb.	Mil. 1b.	Mil. 1b.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. 1b.	Mil. 1b.	Mil. 1b.	Mil. 1b.	
Average 1935-39	944	68	36	1,630	96	1,726	166	26	192	1,430	
1940 1941 1943 1943 1944 1945 1946 1947 1948 1949 1950 1951 1952 1953 1954 1955 1955 1956 1957 1958 1959 1959 1960 4/	1,527 1,526 1,724 2,080 2,367 1,311 1,342 1,722 1,680 1,923 2,225 2,225 2,225 1,812 1,812 1,82 1,82 1,812 1,82 1,92 1,	6.	51 52 76 35 408 420 439 403 389 341 313 296 269 233 209 208 202 192 188 194 185	2,288 2,401 2,865 3,054 2,066 2,134 2,402 2,321 2,631 2,863 2,881 2,355 2,330 2,660 2,761 2,559 2,441 2,803	162 294 199 110 297 456 129 110 167 173 131 127 104 211 74 104 147 112 101 95 124	2,450 2,522 2,600 2,976 3,351 2,522 2,265 2,512 2,488 2,707 2,762 2,990 2,992 2,566 2,404 2,764 2,908 2,671 2,542 2,688 2,775	201 393 652 757 902 651 451 383 277 617 667 689 634 423 465 562 611 501 389 605	31 33 39 36 21 39 34 50 56 56 57 60 62 66 68 61	232 424 685 796 938 672 490 417 327 667 523 743 694 476 521 619 671 563 455 673 681	1,924 1,900 1,805 1,884 1,957 1,722 1,664 1,929 1,987 1,910 2,112 2,143 2,087 2,016 1,779 1,998 2,125 2,006 1,994 2,101 1,950	

<sup>1/</sup> Factory and warehouse stocks as reported by Bureau of the Census. 1948 and 1951 include stocks held or in transit by U. S. Department of Agriculture. 2/ Includes imports, which were less than 500,000 pounds in all years except 1952, when 7 million pounds were imported. 3/ 1947-53, include shipments by CARE. 4/ Preliminary.

Table 16...Lard: Utilization, 1935-60

	Total	:		0	:	Dir	ect use as lar	đ
Year :	domestic	: Shortening	Margarine	: Soap	: Other : nonfood		Civili	en
:	disap- pearance	:		•	: products	: Military	: Total	: : Per capita
:	Mil. 1b.	Mil. 1b.	Mil. 1b.	Mil. 1b.	Mil. 1b.	Mil. 1b.	Mil. 1b.	Lb.
Average : 1935-39 :	1,430	14	2	<u>1</u> /	<u>1</u> /		1,424	11.0
1940 : 1941 : 1942 : 1942 : 1943 : 1944 : 1945 : 1946 : 1947 : 1948 : 1949 : 1950 : 1951 : 1952 : 1953 : 1954 : 1955 : 1956 : 1957 : 1958 : 1959 : 1960 3/	1,924 1,900 1,805 1,884 1,957 1,722 1,664 1,929 1,987 1,910 2,112 2,1143 2,087 2,016 1,779 1,998 2,125 2,006 1,994 2,101 1,950	17 51 62 36 39 23 20 101 127 177 155 200 232 227 142 334 459 376 318 493 480	5 8 8 11 10 6 2 3 3 4 4 5 8 7 13 25 16 59	1 1/ 1/ 588 183 82 1 6 4 0 36 22 2 2 2 1/ 2	1/ 16 9 1 1 25 39 21 25 3 1 6 3 1 1 9 12	21 46 64 133 100 2/-2 25 15 18 15 41 9 6 2 3 3 2	1,901 1,819 1,688 1,679 1,583 1,509 1,642 1,792 1,850 1,736 1,841 1,855 1,817 1,772 1,627 1,639 1,627 1,661 1,657 1,562	14.4 13.8 12.8 12.3 11.7 11.9 12.6 12.7 11.8 12.3 11.8 11.4 10.2 10.1 9.8 9.5 9.7

<sup>1</sup>/ Less than 500,000 pounds. 2/ Difference between military shipments for civilian relief and military takings for both military use and civilian relief. 3/ Preliminary.

Totals computed from unrounded numbers.

Table 17.--Cooking and salad oils: Supply, disposition, and oils used, 1959-60

	•			•	Disposi	tion	
	:	Supply		•		ic disapp	
Year	:	•	•	: :Exports		Civi	lian .
	Pro-	Stocks	Total	: :	Military	Total	Per
	: duction	Jan. 1	supply	•	•		capita
	:Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Lb.
1959	: 1,751	56	1,807	42	26	1,685	9.7
1960	: 1,768	54	1,822	28	15	1,726	9.7
1961	•	54					
		cooking and	l salad oi	ls: Oils	used, by ty	rpe, 1959-	60
	•	:Cotton-	•	•	0	•	•
	:Soybean	seed	: Corn : oil	: Peanut : oil	: Coconut : oil	: Palm : kernel	Total
	: 011	oil	. 011	:	:	: Kerner	•
	•						Mil. lb.
1959	: 817	628	270	40	3	1	1,759
1960	: 796	701	247	29			<u>2</u> /1,775
	:						

<sup>1/</sup> The actual domestic consumption of salad and cooking oils is somewhat lower than 9.7 pounds, because exports of processed oils are included in the disappearance of the primary oils (cottonseed and soybean) rather than in the end product category. 2/ Includes 2 million pounds of secondary oils.

#### Cooking and Salad Oil Consumption High

The "other edible" category, the major component of which is cooking and salad oils, has shown a fairly steady growth in the past 4 decades, rising from 3.5 pounds per person in 1921 to 11.4 pounds in 1960 (table 8). The only interruption to the persistent increase in the consumption rate was during World War II when the use of all food fats declined.

Available data prior to 1959 did not give a breakdown on the end uses of fats and oils consumed in the "other edible" category Cooking and salad oils undoubtedly accounted for the major share of this group over the years Beginning in 1959, Census data provided more detail on the "other edible" category by showing fats and oils consumed in salad and cooking oils separately. The "other edible" category now mainly represents small quantities used for miscellaneous commercial purposes. In 1960, the consumption of salad and cooking oils per person was 9.7 pounds while that for the "other edible" was 1.7 pounds per person. The actual domestic consumption of salad and cooking oils is somewhat lower than 9.7 pounds because exports of processed oils are included in the disappearance of the primary oils (cottonseed and soybean) rather than in the end product category.

Although data for the "other edible oils" group prior to 1959 do not permit detailed analysis, annual statistics covering the salad dressing, mayonnaise and related products industry date back to 1939. As shown in table 8, the per capita consumption of edible oils used in mayonnaise and salad dressings has increased from 1.4 pounds per person in 1939 to 3.8 estimated for 1960. Oils used in mayonnaise and salad dressing during 1939-60 averaged 30 percent of the total edible oils. While oil usage per capita in mayonnaise and salad dressings continues to edge up, its proportion relative to the total consumption of other edible oils has declined slightly in the past decade. This reflects the substantial increase in total edible oil consumption during the 1950's due mainly to increased use of salad and cooking oils as such and also to growing commercial use of oils in the production of potato chips, frozen french fries, mellorine, and other prepared foods and food mixes.